Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.002
Model:                           OLS   Adj. R-squared:                 -0.001
Method:                Least Squares   F-statistic:                    0.5135
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.474
Time:                       20:56:03   Log-Likelihood:                -7987.7
No. Observations:                335   AIC:                         1.598e+04
Df Residuals:                    333   BIC:                         1.599e+04
Df Model:                          1
Covariance Type:           nonrobust
=========================================================================================
                          coef    std err          t      P>|t|      [0.025      0.975]
-----------------------------------------------------------------------------------------
const               -8.236e+08   4.22e+08     -1.950      0.052   -1.65e+09    7.04e+06
# of past defaults  1.946e+08   2.72e+08      0.717      0.474    -3.4e+08    7.29e+08
==============================================================================
Omnibus:                      291.175   Durbin-Watson:                   2.412
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            17811.958
Skew:                          -3.116   Prob(JB):                         0.00
Kurtosis:                      38.174   Cond. No.                         2.72
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 0.9053011880289863
LM P-Value: 0.6359402961575973
F Statistic: 0.44981257633600347
F P-Value: 0.6381357504703624

Rainbow Test Results:

Rainbow Statistic: 3.302759235763397
Rainbow P-Value: 3.9575287927180915e-14

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:           Sum_GDPcycle   R-squared:                       0.000
Model:                            OLS   Adj. R-squared:                 -0.005
Method:                 Least Squares   F-statistic:                 0.0001247
Date:                Sat, 26 Aug 2023   Prob (F-statistic):              0.991
Time:                        20:56:03   Log-Likelihood:                -5215.6
No. Observations:                 218   AIC:                         1.044e+04
Df Residuals:                     216   BIC:                         1.044e+04
Df Model:                           1
Covariance Type:            nonrobust
==========================================================================================================
                                              coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------------------------------------
const                                    -6.82e+08   7.48e+08     -0.911      0.363   -2.16e+09    7.93e+08
Adjusted savings: gross savings (% of GNI)  3.838e+05   3.44e+07      0.011      0.991   -6.73e+07    6.81e+07
==============================================================================
Omnibus:                      192.462   Durbin-Watson:                   1.622
Prob(Omnibus):                  0.000   Jarque-Bera (JB):             9186.903
Skew:                          -2.953   Prob(JB):                         0.00
Kurtosis:                      34.249   Cond. No.                         40.3
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 0.6666616566665291
LM P-Value: 0.7165331054870197
F Statistic: 0.3297521155196053
F P-Value: 0.7194650016564887

Rainbow Test Results:

Rainbow Statistic: 4.216482383346846
Rainbow P-Value: 4.136880949243555e-13

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:           Sum_GDPcycle   R-squared:                       0.002
Model:                            OLS   Adj. R-squared:                 -0.002
Method:                 Least Squares   F-statistic:                    0.4892
Date:                Sat, 26 Aug 2023   Prob (F-statistic):              0.485
Time:                        20:56:04   Log-Likelihood:                -5215.4
No. Observations:                 218   AIC:                         1.043e+04
Df Residuals:                     216   BIC:                         1.044e+04
Df Model:                           1
Covariance Type:            nonrobust
==========================================================================================================================
                                                  coef    std err          t      P>|t|      [0.025      0.975]
------------------------------------------------------------------------------------------------------------------------
const                                        -8.63e+08   4.85e+08     -1.778      0.077   -1.82e+09    9.38e+07
Adjusted savings: net national savings (% of GNI)  2.353e+07   3.36e+07      0.699      0.485   -4.28e+07    8.99e+07
==============================================================================
Omnibus:                      192.240   Durbin-Watson:                   1.627
Prob(Omnibus):                  0.000   Jarque-Bera (JB):             9118.159
Skew:                          -2.950   Prob(JB):                         0.00
Kurtosis:                      34.129   Cond. No.                         17.4
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 0.5463156209261573
LM P-Value: 0.7609726887003558
F Statistic: 0.2700755768625302
F P-Value: 0.7635803778166639

Rainbow Test Results:

Rainbow Statistic: 4.219469533002331
Rainbow P-Value: 4.0396400976481136e-13

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.237
Model:                           OLS   Adj. R-squared:                  0.210
Method:                Least Squares   F-statistic:                     8.699
Date:               Sat, 26 Aug 2023   Prob (F-statistic):            0.00636
Time:                       20:56:04   Log-Likelihood:                -741.87
No. Observations:                 30   AIC:                             1488.
Df Residuals:                     28   BIC:                             1491.
Df Model:                          1
Covariance Type:           nonrobust
=========================================================================================
                            coef    std err          t      P>|t|      [0.025      0.975]
-----------------------------------------------------------------------------------------
const                 -1.608e+09    2.6e+09     -0.619      0.541   -6.93e+09    3.72e+09
Banking Crisis Dummy -2.969e+10   1.01e+10     -2.949      0.006   -5.03e+10   -9.07e+09
==============================================================================
Omnibus:                        2.226   Durbin-Watson:                   1.661
Prob(Omnibus):                  0.329   Jarque-Bera (JB):                1.060
Skew:                          -0.032   Prob(JB):                        0.589
Kurtosis:                       3.919   Cond. No.                         4.03
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 0.651837363330563
LM P-Value: 0.41945653924453474
F Statistic: 0.6218939972225466
F P-Value: 0.43697073157049726

Rainbow Test Results:

Rainbow Statistic: 3.1768759849759998
Rainbow P-Value: 0.02136684757119743

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.004
Model:                           OLS   Adj. R-squared:                 -0.000
Method:                Least Squares   F-statistic:                    0.9915
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.320
Time:                       20:56:04   Log-Likelihood:                -6366.3
No. Observations:                270   AIC:                         1.274e+04
Df Residuals:                    268   BIC:                         1.274e+04
Df Model:                          1
Covariance Type:           nonrobust
==================================================================================================
                                  coef    std err          t      P>|t|      [0.025      0.975]
--------------------------------------------------------------------------------------------------
const                        5.156e+07   3.57e+08      0.144      0.885   -6.52e+08    7.55e+08
Broad money growth (annual %) -1.298e+07    1.3e+07     -0.996      0.320   -3.86e+07    1.27e+07
==============================================================================
Omnibus:                      124.351   Durbin-Watson:                   1.511
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            14911.715
Skew:                          -0.718   Prob(JB):                         0.00
Kurtosis:                      39.379   Cond. No.                         38.2
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 2.579878463434244
LM P-Value: 0.27528751133083523
F Statistic: 1.2879127153540622
F P-Value: 0.2775539493680842

Rainbow Test Results:

Rainbow Statistic: 3.397080898732424
Rainbow P-Value: 3.6467462887301495e-12

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:            Sum_GDPcycle   R-squared:                       0.001
Model:                             OLS   Adj. R-squared:                 -0.003
Method:                  Least Squares   F-statistic:                    0.1818
Date:                 Sat, 26 Aug 2023   Prob (F-statistic):              0.670
Time:                         20:56:05   Log-Likelihood:                -5881.6
No. Observations:                  249   AIC:                         1.177e+04
Df Residuals:                      247   BIC:                         1.177e+04
Df Model:                            1
Covariance Type:             nonrobust
====================================================================================================
                                      coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------------------------------
const                           -2.505e+08      3e+08     -0.836      0.404    -8.4e+08    3.39e+08
Broad money to total reserves ratio  7.322e+06   1.72e+07      0.426      0.670   -2.65e+07    4.11e+07
==============================================================================
Omnibus:                      115.851   Durbin-Watson:                   1.511
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            11802.904
Skew:                          -0.757   Prob(JB):                         0.00
Kurtosis:                      36.695   Cond. No.                         18.7
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 0.18054881921148247
LM P-Value: 0.9136804281816538
F Statistic: 0.08925148197870399
F P-Value: 0.914645138027055

Rainbow Test Results:

Rainbow Statistic: 3.361735407557369
Rainbow P-Value: 3.576384922914313e-11

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:            Sum_GDPcycle   R-squared:                       0.000
Model:                             OLS   Adj. R-squared:                 -0.004
Method:                  Least Squares   F-statistic:                 0.0001455
Date:                 Sat, 26 Aug 2023   Prob (F-statistic):              0.990
Time:                         20:56:05   Log-Likelihood:                -6317.2
No. Observations:                  265   AIC:                         1.264e+04
Df Residuals:                      263   BIC:                         1.265e+04
Df Model:                            1
Covariance Type:             nonrobust
==============================================================================
                 coef    std err          t      P>|t|      [0.025      0.975]
------------------------------------------------------------------------------
const      -6.163e+08    4.1e+08     -1.502      0.134   -1.42e+09    1.92e+08
CA          4.072e+05   3.38e+07      0.012      0.990   -6.61e+07    6.69e+07
==============================================================================
Omnibus:                      243.585   Durbin-Watson:                   1.669
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            15610.828
Skew:                          -3.218   Prob(JB):                         0.00
Kurtosis:                      40.046   Cond. No.                         14.9
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 1.1782623117758195
LM P-Value: 0.5548091180207155
F Statistic: 0.5850630967530097
F P-Value: 0.5577968284363619

Rainbow Test Results:

Rainbow Statistic: 3.7580839578616736
Rainbow P-Value: 1.3681944405861998e-13

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.003
Model:                           OLS   Adj. R-squared:                 -0.015
Method:                Least Squares   F-statistic:                    0.1680
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.683
Time:                       20:56:05   Log-Likelihood:                -1401.4
No. Observations:                 58   AIC:                             2807.
Df Residuals:                     56   BIC:                             2811.
Df Model:                          1
Covariance Type:           nonrobust
==========================================================================================================
                                               coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------------------------------------
const                                    -2.783e+09   1.85e+09     -1.503      0.139   -6.49e+09    9.27e+08
Central government debt, total (% of GDP)  1.245e+07   3.04e+07      0.410      0.683   -4.84e+07    7.33e+07
==============================================================================
Omnibus:                       93.748   Durbin-Watson:                   2.153
Prob(Omnibus):                  0.000   Jarque-Bera (JB):             1770.255
Skew:                          -4.737   Prob(JB):                         0.00
Kurtosis:                      28.353   Cond. No.                         112.
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 0.34770771661989497
LM P-Value: 0.8404197090409141
F Statistic: 0.16585571584989064
F P-Value: 0.847590576803126

Rainbow Test Results:

Rainbow Statistic: 3.7208798649389703
Rainbow P-Value: 0.0004777418052014509

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.004
Model:                           OLS   Adj. R-squared:                  0.000
Method:                Least Squares   F-statistic:                     1.011
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.315
Time:                       20:56:06   Log-Likelihood:                -6571.9
No. Observations:                276   AIC:                         1.315e+04
Df Residuals:                    274   BIC:                         1.316e+04
Df Model:                          1
Covariance Type:           nonrobust
==========================================================================================================
                                          coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------------------------------------
const                                -6.42e+08   3.48e+08     -1.845      0.066   -1.33e+09    4.29e+07
Claims on central government, etc. (% GDP)  1.525e+07   1.52e+07      1.006      0.315   -1.46e+07    4.51e+07
==============================================================================
Omnibus:                     265.437   Durbin-Watson:                   1.733
Prob(Omnibus):                 0.000   Jarque-Bera (JB):            18980.711
Skew:                         -3.471   Prob(JB):                         0.00
Kurtosis:                     43.029   Cond. No.                         24.9
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 2.218107487805926
LM P-Value: 0.3298709558416346
F Statistic: 1.1058864021550414
F P-Value: 0.33239520064563677

Rainbow Test Results:

Rainbow Statistic: 3.826867568918099
Rainbow P-Value: 2.0023159906885363e-14

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:            Sum_GDPcycle   R-squared:                       0.006
Model:                             OLS   Adj. R-squared:                  0.002
Method:                  Least Squares   F-statistic:                     1.484
Date:                 Sat, 26 Aug 2023   Prob (F-statistic):              0.224
Time:                         20:56:06   Log-Likelihood:                -6319.2
No. Observations:                  268   AIC:                         1.264e+04
Df Residuals:                      266   BIC:                         1.265e+04
Df Model:                            1
Covariance Type:             nonrobust
====================================================================================================================================================
                                                                    coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------------------------------------------------------------------------------
const                                                          5.466e+07   3.21e+08      0.170      0.865   -5.77e+08    6.86e+08
Claims on private sector (annual growth as % of broad money) -1.766e+07   1.45e+07     -1.218      0.224   -4.62e+07    1.09e+07
==============================================================================
Omnibus:                      127.024   Durbin-Watson:                   1.526
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            15373.366
Skew:                          -0.777   Prob(JB):                         0.00
Kurtosis:                      40.072   Cond. No.                         27.5
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 0.709603120840359
LM P-Value: 0.7013125975784347
F Statistic: 0.35176128513832783
F P-Value: 0.7037759814789737

Rainbow Test Results:

Rainbow Statistic: 3.4545500129504148
Rainbow P-Value: 2.3507853353225998e-12

Regression Summary:

```
                     OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.000
Model:                           OLS   Adj. R-squared:                 -0.004
Method:                Least Squares   F-statistic:                   0.01531
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.902
Time:                       20:56:07   Log-Likelihood:                -6310.9
No. Observations:                266   AIC:                         1.263e+04
Df Residuals:                    264   BIC:                         1.263e+04
Df Model:                          1
Covariance Type:           nonrobust
==================================================================================================
                                   coef    std err          t      P>|t|      [0.025      0.975]
--------------------------------------------------------------------------------------------------
const                        -3.407e+08   5.71e+08     -0.597      0.551   -1.46e+09    7.83e+08
Consumer price index (2010 = 100) -9.632e+05   7.78e+06     -0.124      0.902   -1.63e+07    1.44e+07
==============================================================================
Omnibus:                      238.161   Durbin-Watson:                   1.822
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            25236.522
Skew:                          -2.885   Prob(JB):                         0.00
Kurtosis:                      50.367   Cond. No.                         140.
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 1.2578930818526193
LM P-Value: 0.5331531603048489
F Statistic: 0.6248078259600867
F P-Value: 0.5361570494249672

Rainbow Test Results:

Rainbow Statistic: 2.7686253354239816
Rainbow P-Value: 5.572061362615002e-09

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.034
Model:                           OLS   Adj. R-squared:                  0.015
Method:                Least Squares   F-statistic:                     1.751
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.192
Time:                       20:56:07   Log-Likelihood:                -1251.0
No. Observations:                 51   AIC:                             2506.
Df Residuals:                     49   BIC:                             2510.
Df Model:                          1
Covariance Type:           nonrobust
=================================================================================================================================
                                                  coef    std err          t      P>|t|      [0.025      0.975]
---------------------------------------------------------------------------------------------------------------------------------
const                                       -4.894e+08   2.09e+09     -0.234      0.816    -4.7e+09    3.72e+09
Cyclically adjusted balance (% of potential GDP)  4.933e+08   3.73e+08      1.323      0.192   -2.56e+08    1.24e+09
==============================================================================
Omnibus:                       30.914   Durbin-Watson:                   1.577
Prob(Omnibus):                  0.000   Jarque-Bera (JB):              122.246
Skew:                          -1.406   Prob(JB):                     2.85e-27
Kurtosis:                      10.044   Cond. No.                         7.68
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 1.5080590140429213
LM P-Value: 0.4704669781448986
F Statistic: 0.731299189645839
F P-Value: 0.48656789235883435

Rainbow Test Results:

Rainbow Statistic: 7.079333157761967
Rainbow P-Value: 5.612953273346228e-06

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:           Sum_GDPcycle   R-squared:                       0.127
Model:                            OLS   Adj. R-squared:                  0.109
Method:                 Least Squares   F-statistic:                     7.132
Date:                Sat, 26 Aug 2023   Prob (F-statistic):             0.0102
Time:                        20:56:07   Log-Likelihood:                -1248.4
No. Observations:                  51   AIC:                             2501.
Df Residuals:                      49   BIC:                             2505.
Df Model:                           1
Covariance Type:            nonrobust
===================================================================================================================================
                                                      coef    std err          t      P>|t|      [0.025      0.975]
-----------------------------------------------------------------------------------------------------------------------------------
const                                           -6.205e+08   1.61e+09     -0.385      0.702   -3.86e+09    2.62e+09
Cyclically adjusted primary balance (% of potential GDP)  1.079e+09   4.04e+08      2.671      0.010    2.67e+08    1.89e+09
==============================================================================
Omnibus:                       31.221   Durbin-Watson:                   1.596
Prob(Omnibus):                  0.000   Jarque-Bera (JB):               96.439
Skew:                          -1.567   Prob(JB):                     1.14e-21
Kurtosis:                       8.963   Cond. No.                         4.40
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 2.1473641696720898
LM P-Value: 0.34174785331848195
F Statistic: 1.0549428745487657
F P-Value: 0.3561457743549704

Rainbow Test Results:

Rainbow Statistic: 6.441520327240439
Rainbow P-Value: 1.3023722427803183e-05

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.074
Model:                           OLS   Adj. R-squared:                  0.070
Method:                Least Squares   F-statistic:                    0.5865
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.445
Time:                       20:56:08   Log-Likelihood:                -5771.9
No. Observations:                245   AIC:                         1.155e+04
Df Residuals:                    243   BIC:                         1.155e+04
Df Model:                          1
Covariance Type:                 HC3
==================================================================================================================================
                                                       coef    std err          z      P>|z|      [0.025      0.975]
------------------------------------------------------------------------------------------------------------------------
const                                            -4.302e+08   2.47e+08     -1.740      0.082   -9.15e+08    5.43e+07
Debt service on external debt, total (TDS, current US$)     0.1943      0.254      0.766      0.444      -0.303       0.692
==============================================================================
Omnibus:                      280.430   Durbin-Watson:                   1.471
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            26162.044
Skew:                          -4.447   Prob(JB):                         0.00
Kurtosis:                      52.837   Cond. No.                     6.46e+09
==============================================================================

Notes:
[1] Standard Errors are heteroscedasticity robust (HC3)
[2] The condition number is large, 6.46e+09. This might indicate that there are
strong multicollinearity or other numerical problems.
```

White Test Results:

LM Statistic: 76.14388591268668
LM P-Value: 2.6373049469828484e-18
F Statistic: 109.57829023126295
F P-Value: 2.0807501065643932e-21

Rainbow Test Results:

Rainbow Statistic: 3.870155820489807
Rainbow P-Value: 3.8514947814309274e-13

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:            Sum_GDPcycle   R-squared:                       0.079
Model:                             OLS   Adj. R-squared:                  0.075
Method:                  Least Squares   F-statistic:                     2.031
Date:                 Sat, 26 Aug 2023   Prob (F-statistic):              0.155
Time:                         20:56:08   Log-Likelihood:                -5590.4
No. Observations:                  235   AIC:                         1.118e+04
Df Residuals:                      233   BIC:                         1.119e+04
Df Model:                            1
Covariance Type:                   HC3
==============================================================================================================
                                                 coef    std err          z      P>|z|      [0.025      0.975]
--------------------------------------------------------------------------------------------------------------
const                                       8.278e+08   7.69e+08      1.076      0.282   -6.79e+08    2.33e+09
Domestic credit to private sector (% of GDP) -4.401e+07   3.09e+07     -1.425      0.154   -1.05e+08    1.65e+07
==============================================================================
Omnibus:                      208.746   Durbin-Watson:                   1.545
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            14033.834
Skew:                          -2.913   Prob(JB):                         0.00
Kurtosis:                      40.407   Cond. No.                         60.6
==============================================================================

Notes:
[1] Standard Errors are heteroscedasticity robust (HC3)
```

White Test Results:

LM Statistic: 14.262912672259867
LM P-Value: 0.0007995541196351316
F Statistic: 7.495332524369241
F P-Value: 0.000700912271074778

Rainbow Test Results:

Rainbow Statistic: 6.000327651487223
Rainbow P-Value: 5.974844854819067e-20

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:           Sum_GDPcycle   R-squared:                       0.000
Model:                            OLS   Adj. R-squared:                 -0.003
Method:                 Least Squares   F-statistic:                    0.1271
Date:                Sat, 26 Aug 2023   Prob (F-statistic):              0.722
Time:                        20:56:08   Log-Likelihood:                -7987.9
No. Observations:                 335   AIC:                         1.598e+04
Df Residuals:                     333   BIC:                         1.599e+04
Df Model:                           1
Covariance Type:            nonrobust
==========================================================================================
                             coef    std err          t      P>|t|      [0.025      0.975]
------------------------------------------------------------------------------------------
const                  -7.481e+08   4.88e+08     -1.532      0.126   -1.71e+09    2.12e+08
Dummy for past default  2.209e+08    6.2e+08      0.356      0.722   -9.98e+08    1.44e+09
==============================================================================
Omnibus:                      292.224   Durbin-Watson:                   2.410
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            17849.629
Skew:                          -3.136   Prob(JB):                         0.00
Kurtosis:                      38.206   Cond. No.                         3.01
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 0.09633262327927661
LM P-Value: 0.7562758244184209
F Statistic: 0.09578504709509929
F P-Value: 0.7571411734969686

Rainbow Test Results:

Rainbow Statistic: 3.3546580109611632
Rainbow P-Value: 1.956045110907372e-14

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:            Sum_GDPcycle   R-squared:                       0.006
Model:                             OLS   Adj. R-squared:                  0.002
Method:                  Least Squares   F-statistic:                     1.450
Date:                 Sat, 26 Aug 2023   Prob (F-statistic):              0.230
Time:                         20:56:09   Log-Likelihood:                -6282.7
No. Observations:                  263   AIC:                         1.257e+04
Df Residuals:                      261   BIC:                         1.258e+04
Df Model:                            1
Covariance Type:             nonrobust
==================================================================================================================
                                           coef    std err          t      P>|t|      [0.025      0.975]
------------------------------------------------------------------------------------------------------------------
const                                  8.703e+07   6.77e+08      0.129      0.898   -1.25e+09    1.42e+09
Exports of goods and services (% of GDP) -2.172e+07    1.8e+07     -1.204      0.230   -5.72e+07    1.38e+07
==============================================================================
Omnibus:                      210.438   Durbin-Watson:                   1.816
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            11240.421
Skew:                          -2.604   Prob(JB):                         0.00
Kurtosis:                      34.601   Cond. No.                         71.6
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 1.9651710756693683
LM P-Value: 0.37434197120352775
F Statistic: 0.978690241795572
F P-Value: 0.377183056472572

Rainbow Test Results:

Rainbow Statistic: 2.8692594883234195
Rainbow P-Value: 2.2306551715168416e-09

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.001
Model:                           OLS   Adj. R-squared:                 -0.004
Method:                Least Squares   F-statistic:                    0.1116
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.739
Time:                       20:56:09   Log-Likelihood:                -4887.5
No. Observations:                204   AIC:                             9779.
Df Residuals:                    202   BIC:                             9786.
Df Model:                          1
Covariance Type:           nonrobust
==========================================================================================================================
                                                 coef    std err          t      P>|t|      [0.025      0.975]
--------------------------------------------------------------------------------------------------------------------------
const                                      -7.917e+08   4.56e+08     -1.736      0.084   -1.69e+09    1.07e+08
Exports of goods and services (annual % growth)  8.068e+06   2.41e+07      0.334      0.739   -3.95e+07    5.57e+07
==============================================================================
Omnibus:                     175.736   Durbin-Watson:                   1.676
Prob(Omnibus):                 0.000   Jarque-Bera (JB):             7410.114
Skew:                         -2.825   Prob(JB):                         0.00
Kurtosis:                     31.980   Cond. No.                         19.9
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 0.33318835804108504
LM P-Value: 0.8465430865822939
F Statistic: 0.1644127961407611
F P-Value: 0.8485057164344597

Rainbow Test Results:

Rainbow Statistic: 3.917015797049979
Rainbow P-Value: 2.215902752686772e-11

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.002
Model:                           OLS   Adj. R-squared:                 -0.001
Method:                Least Squares   F-statistic:                    0.6280
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.429
Time:                       20:56:10   Log-Likelihood:                -6283.2
No. Observations:                263   AIC:                         1.257e+04
Df Residuals:                    261   BIC:                         1.258e+04
Df Model:                          1
Covariance Type:           nonrobust
==============================================================================================================
                                                   coef    std err          t      P>|t|      [0.025      0.975]
--------------------------------------------------------------------------------------------------------------
const                                        -7.869e+08   4.22e+08     -1.866      0.063   -1.62e+09    4.35e+07
External balance on goods and services (% of GDP) -1.758e+07   2.22e+07     -0.792      0.429   -6.13e+07    2.61e+07
==============================================================================
Omnibus:                      201.225   Durbin-Watson:                   1.836
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            10804.944
Skew:                          -2.415   Prob(JB):                         0.00
Kurtosis:                      34.027   Cond. No.                         22.6
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 2.912791030861985
LM P-Value: 0.2330748772553692
F Statistic: 1.4559071763386426
F P-Value: 0.23508338975156745

Rainbow Test Results:

Rainbow Statistic: 2.760971242110578
Rainbow P-Value: 7.530795668103005e-09

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.000
Model:                           OLS   Adj. R-squared:                 -0.004
Method:                Least Squares   F-statistic:                   0.03787
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.846
Time:                       20:56:10   Log-Likelihood:                -5573.4
No. Observations:                236   AIC:                         1.115e+04
Df Residuals:                    234   BIC:                         1.116e+04
Df Model:                          1
Covariance Type:           nonrobust
====================================================================================================
                                     coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------------------------------
const                          -5.447e+07   4.11e+08     -0.133      0.895   -8.64e+08    7.55e+08
External debt stocks (% of GNI) -8.885e+05   4.57e+06     -0.195      0.846   -9.88e+06    8.11e+06
==============================================================================
Omnibus:                      117.207   Durbin-Watson:                   1.422
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            13052.775
Skew:                          -0.845   Prob(JB):                         0.00
Kurtosis:                      39.394   Cond. No.                         130.
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 3.45257760233541
LM P-Value: 0.17794357004564323
F Statistic: 1.7296484584733678
F P-Value: 0.17961595295218627

Rainbow Test Results:

Rainbow Statistic: 4.423466308070383
Rainbow P-Value: 7.932481937628522e-15

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.004
Model:                           OLS   Adj. R-squared:                 -0.001
Method:                Least Squares   F-statistic:                    0.8652
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.353
Time:                       20:56:10   Log-Likelihood:                -5653.8
No. Observations:                237   AIC:                         1.131e+04
Df Residuals:                    235   BIC:                         1.132e+04
Df Model:                          1
Covariance Type:           nonrobust
===================================================================================
                      coef    std err          t      P>|t|      [0.025      0.975]
-----------------------------------------------------------------------------------
const            1.141e+09    2.1e+09      0.543      0.588      -3e+09    5.28e+09
Food Price Index -2.186e+07   2.35e+07     -0.930      0.353   -6.81e+07    2.44e+07
==============================================================================
Omnibus:                     229.079   Durbin-Watson:                   1.732
Prob(Omnibus):                 0.000   Jarque-Bera (JB):            13706.176
Skew:                         -3.430   Prob(JB):                         0.00
Kurtosis:                     39.618   Cond. No.                         520.
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 3.3058930328745917
LM P-Value: 0.19148486327473016
F Statistic: 1.655110134637411
F P-Value: 0.19329986558511386

Rainbow Test Results:

Rainbow Statistic: 5.498769547790623
Rainbow P-Value: 1.5306687782948565e-18

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:            Sum_GDPcycle   R-squared:                       0.023
Model:                             OLS   Adj. R-squared:                  0.018
Method:                  Least Squares   F-statistic:                     5.119
Date:                 Sat, 26 Aug 2023   Prob (F-statistic):             0.0246
Time:                         20:56:11   Log-Likelihood:                -5344.9
No. Observations:                  224   AIC:                         1.069e+04
Df Residuals:                      222   BIC:                         1.070e+04
Df Model:                            1
Covariance Type:             nonrobust
=================================================================================================
                                coef    std err          t      P>|t|      [0.025      0.975]
-------------------------------------------------------------------------------------------------
const                     -4.17e+08   3.97e+08     -1.051      0.295    -1.2e+09    3.65e+08
Food Price Index (% change) -8.679e+09   3.84e+09     -2.262      0.025   -1.62e+10   -1.12e+09
==============================================================================
Omnibus:                      224.591   Durbin-Watson:                   1.717
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            13028.295
Skew:                          -3.607   Prob(JB):                         0.00
Kurtosis:                      39.659   Cond. No.                         10.3
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 0.12033747526991334
LM P-Value: 0.9416056358705548
F Statistic: 0.0593948144613489
F P-Value: 0.9423496852390139

Rainbow Test Results:

Rainbow Statistic: 6.236854396246454
Rainbow P-Value: 8.438792817946082e-20

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.001
Model:                           OLS   Adj. R-squared:                 -0.003
Method:                Least Squares   F-statistic:                    0.1548
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.694
Time:                       20:56:11   Log-Likelihood:                -7028.1
No. Observations:                295   AIC:                         1.406e+04
Df Residuals:                    293   BIC:                         1.407e+04
Df Model:                          1
Covariance Type:           nonrobust
==================================================================================================================================
                                                  coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------------------------------------------------
const                                       -4.134e+08   3.51e+08     -1.178      0.240    -1.1e+09    2.77e+08
Foreign direct investment, net inflows (% of GDP) -1.389e+07   3.53e+07     -0.393      0.694   -8.34e+07    5.56e+07
==============================================================================
Omnibus:                     245.758   Durbin-Watson:                   1.782
Prob(Omnibus):                 0.000   Jarque-Bera (JB):            17272.560
Skew:                         -2.764   Prob(JB):                         0.00
Kurtosis:                     40.077   Cond. No.                         11.1
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 0.917717233206572
LM P-Value: 0.6320045935393134
F Statistic: 0.4556096164229261
F P-Value: 0.6345112883277868

Rainbow Test Results:

Rainbow Statistic: 2.74037906538664
Rainbow P-Value: 1.2762870010379626e-09

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.001
Model:                           OLS   Adj. R-squared:                 -0.002
Method:                Least Squares   F-statistic:                  0.006775
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.934
Time:                       20:56:11   Log-Likelihood:                -7287.9
No. Observations:                306   AIC:                         1.458e+04
Df Residuals:                    304   BIC:                         1.459e+04
Df Model:                          1
Covariance Type:                 HC3
============================================================================================
                              coef    std err          z      P>|z|      [0.025      0.975]
--------------------------------------------------------------------------------------------
const                   -4.736e+08   4.27e+08     -1.108      0.268   -1.31e+09    3.64e+08
GDP (constant 2015 US$)    -0.0011      0.013     -0.082      0.934      -0.027       0.025
==============================================================================
Omnibus:                     226.510   Durbin-Watson:                   1.814
Prob(Omnibus):                 0.000   Jarque-Bera (JB):            16003.186
Skew:                         -2.281   Prob(JB):                         0.00
Kurtosis:                     38.133   Cond. No.                     1.79e+11
==============================================================================

Notes:
[1] Standard Errors are heteroscedasticity robust (HC3)
[2] The condition number is large, 1.79e+11. This might indicate that there are
strong multicollinearity or other numerical problems.
```

White Test Results:

LM Statistic: 166.1341944436828
LM P-Value: 5.170739917432440e-38
F Statistic: 361.0946571965634
F P-Value: 1.2885148737075522e-53

Rainbow Test Results:

Rainbow Statistic: 2.7982453729748804
Rainbow P-Value: 2.93432211730931e-10

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.006
Model:                           OLS   Adj. R-squared:                  0.003
Method:                Least Squares   F-statistic:                     1.766
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.185
Time:                       20:56:12   Log-Likelihood:                -7123.7
No. Observations:                299   AIC:                         1.425e+04
Df Residuals:                    297   BIC:                         1.426e+04
Df Model:                          1
Covariance Type:           nonrobust
=========================================================================================
                            coef    std err          t      P>|t|      [0.025      0.975]
-----------------------------------------------------------------------------------------
const                 -8.754e+08   4.06e+08     -2.156      0.032   -1.67e+09   -7.62e+07
GDP growth (annual %)  8.117e+07   6.11e+07      1.329      0.185   -3.91e+07    2.01e+08
==============================================================================
Omnibus:                      238.298   Durbin-Watson:                   1.832
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            15894.868
Skew:                          -2.591   Prob(JB):                         0.00
Kurtosis:                      38.341   Cond. No.                         8.73
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 2.322503581032939
LM P-Value: 0.31309400736508797
F Statistic: 1.158599941491551
F P-Value: 0.3153448453074839

Rainbow Test Results:

Rainbow Statistic: 2.7440412211400975
Rainbow P-Value: 9.47828909418776e-10

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:           Sum_GDPcycle   R-squared:                       0.000
Model:                            OLS   Adj. R-squared:                 -0.003
Method:                 Least Squares   F-statistic:                   0.01324
Date:                Sat, 26 Aug 2023   Prob (F-statistic):              0.908
Time:                        20:56:12   Log-Likelihood:                -7497.9
No. Observations:                 315   AIC:                         1.500e+04
Df Residuals:                     313   BIC:                         1.501e+04
Df Model:                           1
Covariance Type:            nonrobust
==================================================================================================
                                 coef    std err          t      P>|t|      [0.025      0.975]
--------------------------------------------------------------------------------------------------
const                      -6.393e+08   1.11e+09     -0.578      0.564   -2.81e+09    1.54e+09
GDP growth China (annual %)  1.258e+07   1.09e+08      0.115      0.908   -2.03e+08    2.28e+08
==============================================================================
Omnibus:                      260.995   Durbin-Watson:                   1.831
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            19211.296
Skew:                          -2.766   Prob(JB):                         0.00
Kurtosis:                      40.857   Cond. No.                         37.9
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 1.1193426223190777
LM P-Value: 0.5713968447527253
F Statistic: 0.5563179666457356
F P-Value: 0.5738837871612366

Rainbow Test Results:

Rainbow Statistic: 2.781638773728023
Rainbow P-Value: 2.0915629017538656e-10

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.000
Model:                           OLS   Adj. R-squared:                 -0.003
Method:                Least Squares   F-statistic:                  0.001846
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.966
Time:                       20:56:12   Log-Likelihood:                -7497.9
No. Observations:                315   AIC:                         1.500e+04
Df Residuals:                    313   BIC:                         1.501e+04
Df Model:                          1
Covariance Type:           nonrobust
===============================================================================================
                                 coef    std err          t      P>|t|      [0.025      0.975]
-----------------------------------------------------------------------------------------------
const                       -4.99e+08    5.1e+08     -0.979      0.328    -1.5e+09    5.04e+08
GDP growth USA (annual %) -7.108e+06   1.65e+08     -0.043      0.966   -3.33e+08    3.18e+08
==============================================================================
Omnibus:                      261.210   Durbin-Watson:                   1.831
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            19211.058
Skew:                          -2.770   Prob(JB):                         0.00
Kurtosis:                      40.855   Cond. No.                         5.66
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 1.2524664785779238
LM P-Value: 0.5346017299621746
F Statistic: 0.622745200464875
F P-Value: 0.5371351647460241

Rainbow Test Results:

Rainbow Statistic: 2.7929857528887636
Rainbow P-Value: 1.795181214496867e-10

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.047
Model:                           OLS   Adj. R-squared:                  0.044
Method:                Least Squares   F-statistic:                     2.248
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.135
Time:                       20:56:13   Log-Likelihood:                -7234.1
No. Observations:                304   AIC:                         1.447e+04
Df Residuals:                    302   BIC:                         1.448e+04
Df Model:                          1
Covariance Type:                 HC3
==========================================================================================================
                                        coef    std err          z      P>|z|      [0.025      0.975]
----------------------------------------------------------------------------------------------------------
const                              2.532e+08   3.95e+08      0.641      0.521    -5.2e+08    1.03e+09
GDP per capita (constant 2015 US$) -1.764e+05   1.18e+05     -1.499      0.134   -4.07e+05    5.42e+04
==============================================================================
Omnibus:                     198.429   Durbin-Watson:                   1.805
Prob(Omnibus):                 0.000   Jarque-Bera (JB):            13271.985
Skew:                         -1.855   Prob(JB):                         0.00
Kurtosis:                     35.156   Cond. No.                     9.61e+03
==============================================================================

Notes:
[1] Standard Errors are heteroscedasticity robust (HC3)
[2] The condition number is large, 9.61e+03. This might indicate that there are
strong multicollinearity or other numerical problems.
```

White Test Results:

LM Statistic: 24.75261601003479
LM P-Value: 4.217331377214756e-06
F Statistic: 13.340388927847943
F P-Value: 2.811170709645513e-06

Rainbow Test Results:

Rainbow Statistic: 2.709547241527299
Rainbow P-Value: 1.0638948895867488e-09

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:           Sum_GDPcycle   R-squared:                       0.000
Model:                            OLS   Adj. R-squared:                 -0.004
Method:                 Least Squares   F-statistic:                   0.03669
Date:                Sat, 26 Aug 2023   Prob (F-statistic):              0.848
Time:                        20:56:13   Log-Likelihood:                -5977.1
No. Observations:                 250   AIC:                         1.196e+04
Df Residuals:                     248   BIC:                         1.197e+04
Df Model:                           1
Covariance Type:            nonrobust
==============================================================================================================================================
                                                               coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------------------------------------------------------
const                                                    -7.635e+08   9.62e+08     -0.794      0.428   -2.66e+09    1.13e+09
General government final consumption expenditure (% of GDP)  1.131e+07   5.91e+07      0.192      0.848   -1.05e+08    1.28e+08
==============================================================================
Omnibus:                      195.627   Durbin-Watson:                   1.716
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            10019.136
Skew:                          -2.490   Prob(JB):                         0.00
Kurtosis:                      33.611   Cond. No.                         42.3
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 3.4310396207545835
LM P-Value: 0.1798701980126904
F Statistic: 1.718518796978545
F P-Value: 0.1814687414270829

Rainbow Test Results:

Rainbow Statistic: 3.024515514415375
Rainbow P-Value: 1.0233803044200188e-09

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:           Sum_GDPcycle   R-squared:                       0.003
Model:                            OLS   Adj. R-squared:                 -0.002
Method:                 Least Squares   F-statistic:                    0.6466
Date:                Sat, 26 Aug 2023   Prob (F-statistic):              0.422
Time:                        20:56:14   Log-Likelihood:                -4511.2
No. Observations:                 188   AIC:                             9026.
Df Residuals:                     186   BIC:                             9033.
Df Model:                           1
Covariance Type:            nonrobust
==================================================================================================================================
                                                             coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------------------------------------------------------------
const                                                  -8.987e+08    5.1e+08     -1.761      0.080   -1.91e+09    1.08e+08
General government final consumption expenditure (annual % growth)  3.216e+07      4e+07      0.804      0.422   -4.67e+07    1.11e+08
==============================================================================
Omnibus:                      158.039   Durbin-Watson:                   1.608
Prob(Omnibus):                  0.000   Jarque-Bera (JB):             5734.654
Skew:                          -2.699   Prob(JB):                         0.00
Kurtosis:                      29.513   Cond. No.                         13.9
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 0.3088088621013996
LM P-Value: 0.8569253836874376
F Statistic: 0.15219051875158407
F P-Value: 0.8589320565080428

Rainbow Test Results:

Rainbow Statistic: 4.266201842918266
Rainbow P-Value: 1.1450881697711127e-11

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:           Sum_GDPcycle   R-squared:                       0.002
Model:                            OLS   Adj. R-squared:                 -0.002
Method:                 Least Squares   F-statistic:                    0.5363
Date:                Sat, 26 Aug 2023   Prob (F-statistic):              0.465
Time:                        20:56:14   Log-Likelihood:                -6114.8
No. Observations:                 256   AIC:                         1.223e+04
Df Residuals:                     254   BIC:                         1.224e+04
Df Model:                           1
Covariance Type:            nonrobust
======================================================================================================
                                       coef    std err          t      P>|t|      [0.025      0.975]
------------------------------------------------------------------------------------------------------
const                             1.354e+08   9.64e+08      0.140      0.888   -1.76e+09    2.03e+09
Gross capital formation (% of GDP) -2.738e+07   3.74e+07     -0.732      0.465   -1.01e+08    4.62e+07
==============================================================================
Omnibus:                      206.711   Durbin-Watson:                   1.786
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            11856.165
Skew:                          -2.597   Prob(JB):                         0.00
Kurtosis:                      35.932   Cond. No.                         69.4
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 0.8934487328605201
LM P-Value: 0.6397202123417877
F Statistic: 0.4430355243543117
F P-Value: 0.6425815662889482

Rainbow Test Results:

Rainbow Statistic: 2.9084585549964266
Rainbow P-Value: 2.290183664544383e-09

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.000
Model:                           OLS   Adj. R-squared:                 -0.005
Method:                Least Squares   F-statistic:                   0.06347
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.801
Time:                       20:56:14   Log-Likelihood:                -4170.1
No. Observations:                174   AIC:                             8344.
Df Residuals:                    172   BIC:                             8351.
Df Model:                          1
Covariance Type:           nonrobust
=========================================================================================
                            coef    std err          t      P>|t|      [0.025      0.975]
-----------------------------------------------------------------------------------------
const                -8.364e+08   7.29e+08     -1.148      0.253   -2.27e+09    6.02e+08
Gross debt (% of GDP)  2.467e+06   9.79e+06      0.252      0.801   -1.69e+07    2.18e+07
==============================================================================
Omnibus:                     172.015   Durbin-Watson:                   1.704
Prob(Omnibus):                 0.000   Jarque-Bera (JB):             7939.388
Skew:                         -3.325   Prob(JB):                         0.00
Kurtosis:                     35.417   Cond. No.                         115.
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 0.522880607908643
LM P-Value: 0.7699418365355226
F Statistic: 0.25770713816814006
F P-Value: 0.7731211335711742

Rainbow Test Results:

Rainbow Statistic: 6.831997127727245
Rainbow P-Value: 5.711023470580886e-17

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.002
Model:                            OLS   Adj. R-squared:                 -0.002
Method:                 Least Squares   F-statistic:                    0.5077
Date:                Sat, 26 Aug 2023   Prob (F-statistic):              0.477
Time:                        20:56:15   Log-Likelihood:                -6023.7
No. Observations:                 252   AIC:                         1.205e+04
Df Residuals:                     250   BIC:                         1.206e+04
Df Model:                           1
Covariance Type:            nonrobust
=========================================================================================================
                                       coef    std err          t      P>|t|      [0.025      0.975]
---------------------------------------------------------------------------------------------------------
const                            -3.552e+08   4.92e+08     -0.722      0.471   -1.32e+09    6.14e+08
Gross domestic savings (% of GDP) -1.554e+07   2.18e+07     -0.713      0.477   -5.85e+07    2.74e+07
==============================================================================
Omnibus:                      194.695   Durbin-Watson:                   1.769
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            10183.108
Skew:                          -2.435   Prob(JB):                         0.00
Kurtosis:                      33.759   Cond. No.                         30.2
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 1.9936381316585616
LM P-Value: 0.36905150459659125
F Statistic: 0.9928065251483558
F P-Value: 0.37199720015615034

Rainbow Test Results:

Rainbow Statistic: 2.9766952659765686
Rainbow P-Value: 1.4632542697832132e-09

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:            Sum_GDPcycle   R-squared:                       0.000
Model:                            OLS   Adj. R-squared:                 -0.004
Method:                 Least Squares   F-statistic:                   0.06026
Date:                Sat, 26 Aug 2023   Prob (F-statistic):              0.806
Time:                        20:56:15   Log-Likelihood:                -5974.6
No. Observations:                 250   AIC:                         1.195e+04
Df Residuals:                     248   BIC:                         1.196e+04
Df Model:                           1
Covariance Type:            nonrobust
======================================================================================================
                                         coef    std err          t      P>|t|      [0.025      0.975]
------------------------------------------------------------------------------------------------------
const                              -1.181e+09   2.65e+09     -0.446      0.656   -6.39e+09    4.03e+09
Gross national expenditure (% of GDP)  5.897e+06    2.4e+07      0.245      0.806   -4.14e+07    5.32e+07
==============================================================================
Omnibus:                      197.355   Durbin-Watson:                   1.791
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            10806.881
Skew:                          -2.501   Prob(JB):                         0.00
Kurtosis:                      34.819   Cond. No.                         792.
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 2.4802558493844664
LM P-Value: 0.28934720091977945
F Statistic: 1.2375238930943284
F P-Value: 0.2918939466356465

Rainbow Test Results:

Rainbow Statistic: 2.9053694600592954
Rainbow P-Value: 3.6019852569624297e-09

Regression Summary:

```
                         OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.001
Model:                           OLS   Adj. R-squared:                 -0.003
Method:                Least Squares   F-statistic:                    0.2138
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.644
Time:                       20:56:15   Log-Likelihood:                -6283.3
No. Observations:                263   AIC:                         1.257e+04
Df Residuals:                    261   BIC:                         1.258e+04
Df Model:                          1
Covariance Type:                 HC3
==========================================================================================================
                                           coef    std err          z      P>|z|      [0.025      0.975]
----------------------------------------------------------------------------------------------------------
const                                -2.431e+08   1.08e+09     -0.226      0.821   -2.35e+09    1.87e+09
Imports of goods and services (% of GDP)  -8.63e+06   1.87e+07     -0.462      0.644   -4.52e+07    2.79e+07
==============================================================================
Omnibus:                     208.847   Durbin-Watson:                   1.823
Prob(Omnibus):                 0.000   Jarque-Bera (JB):            11093.337
Skew:                         -2.574   Prob(JB):                         0.00
Kurtosis:                     34.398   Cond. No.                         105.
==============================================================================

Notes:
[1] Standard Errors are heteroscedasticity robust (HC3)
```

White Test Results:

LM Statistic: 10.16795959046059
LM P-Value: 0.006195204244282022
F Statistic: 5.228114065838951
F P-Value: 0.005941921843394832

Rainbow Test Results:

Rainbow Statistic: 2.8422416570337132
Rainbow P-Value: 3.0186320811943588e-09

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:            Sum_GDPcycle   R-squared:                       0.000
Model:                             OLS   Adj. R-squared:                 -0.005
Method:                  Least Squares   F-statistic:                  0.006554
Date:                 Sat, 26 Aug 2023   Prob (F-statistic):              0.936
Time:                         20:56:16   Log-Likelihood:                -4887.5
No. Observations:                  204   AIC:                             9779.
Df Residuals:                      202   BIC:                             9786.
Df Model:                            1
Covariance Type:             nonrobust
==================================================================================================================
                                                 coef    std err          t      P>|t|      [0.025      0.975]
------------------------------------------------------------------------------------------------------------------
const                                      -7.592e+08   4.75e+08     -1.600      0.111   -1.69e+09    1.76e+08
Imports of goods and services (annual % growth)  2.421e+06   2.99e+07      0.081      0.936   -5.65e+07    6.14e+07
==============================================================================
Omnibus:                      175.567   Durbin-Watson:                   1.677
Prob(Omnibus):                  0.000   Jarque-Bera (JB):             7369.533
Skew:                          -2.822   Prob(JB):                         0.00
Kurtosis:                      31.899   Cond. No.                         17.4
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 0.31058487807720514
LM P-Value: 0.8561647648694622
F Statistic: 0.1532420338488208
F P-Value: 0.8580221868504077

Rainbow Test Results:

Rainbow Statistic: 3.972989844889486
Rainbow P-Value: 1.4393934023469223e-11

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:            Sum_GDPcycle   R-squared:                       0.004
Model:                             OLS   Adj. R-squared:                 -0.000
Method:                  Least Squares   F-statistic:                    0.9411
Date:                 Sat, 26 Aug 2023   Prob (F-statistic):              0.333
Time:                         20:56:16   Log-Likelihood:                -6171.0
No. Observations:                  260   AIC:                         1.235e+04
Df Residuals:                      258   BIC:                         1.235e+04
Df Model:                            1
Covariance Type:             nonrobust
====================================================================================================
                                          coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------------------------------
const                               -6.557e+08   4.01e+08     -1.637      0.103   -1.44e+09    1.33e+08
Inflation, consumer prices (annual %)  2.634e+07   2.71e+07      0.970      0.333   -2.71e+07    7.98e+07
==============================================================================
Omnibus:                      229.931   Durbin-Watson:                   1.795
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            23297.267
Skew:                          -2.821   Prob(JB):                         0.00
Kurtosis:                      49.029   Cond. No.                         19.3
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 0.7505049944114739
LM P-Value: 0.6871157620757092
F Statistic: 0.37199644990551234
F P-Value: 0.6897272578837992

Rainbow Test Results:

Rainbow Statistic: 2.706217902394543
Rainbow P-Value: 1.6460517300614087e-08

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.001
Model:                           OLS   Adj. R-squared:                 -0.007
Method:                Least Squares   F-statistic:                    0.1549
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.695
Time:                       20:56:17   Log-Likelihood:                -2923.7
No. Observations:                123   AIC:                             5851.
Df Residuals:                    121   BIC:                             5857.
Df Model:                          1
Covariance Type:           nonrobust
====================================================================================================
                                       coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------------------------------
const                            -1.205e+09   6.69e+08     -1.800      0.074   -2.53e+09     1.2e+08
Interest payments (% of revenue)   2.03e+07   5.16e+07      0.394      0.695   -8.18e+07    1.22e+08
==============================================================================
Omnibus:                      125.248   Durbin-Watson:                   1.817
Prob(Omnibus):                  0.000   Jarque-Bera (JB):             3070.830
Skew:                          -3.312   Prob(JB):                         0.00
Kurtosis:                      26.565   Cond. No.                         18.8
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 1.5415252184688006
LM P-Value: 0.46266010487338083
F Statistic: 0.7615072828346762
F P-Value: 0.46920507721271076

Rainbow Test Results:

Rainbow Statistic: 1.4605095978127687
Rainbow P-Value: 0.07243667419672896

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:            Sum_GDPcycle   R-squared:                       0.000
Model:                             OLS   Adj. R-squared:                 -0.018
Method:                  Least Squares   F-statistic:                   0.02643
Date:                 Sat, 26 Aug 2023   Prob (F-statistic):              0.871
Time:                         20:56:17   Log-Likelihood:                -1363.3
No. Observations:                   56   AIC:                             2731.
Df Residuals:                       54   BIC:                             2735.
Df Model:                            1
Covariance Type:            nonrobust
=======================================================================================
                          coef    std err          t      P>|t|      [0.025      0.975]
---------------------------------------------------------------------------------------
const               -8.154e+08   1.54e+09     -0.529      0.599   -3.91e+09    2.27e+09
Net debt (% of GDP)  3.369e+06   2.07e+07      0.163      0.871   -3.82e+07    4.49e+07
==============================================================================
Omnibus:                       52.234   Durbin-Watson:                   1.719
Prob(Omnibus):                  0.000   Jarque-Bera (JB):              641.030
Skew:                          -2.000   Prob(JB):                     6.34e-140
Kurtosis:                      19.085   Cond. No.                         93.1
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 0.31884325974143657
LM P-Value: 0.8526367860332482
F Statistic: 0.15174516618903072
F P-Value: 0.8595791640806335

Rainbow Test Results:

Rainbow Statistic: 9.94899656486011
Rainbow P-Value: 4.558379229419669e-08

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.005
Model:                           OLS   Adj. R-squared:                 -0.001
Method:                Least Squares   F-statistic:                    0.8960
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.345
Time:                       20:56:17   Log-Likelihood:                -4523.3
No. Observations:                189   AIC:                             9051.
Df Residuals:                    187   BIC:                             9057.
Df Model:                          1
Covariance Type:           nonrobust
==================================================================================================================
                                                 coef    std err          t      P>|t|      [0.025      0.975]
------------------------------------------------------------------------------------------------------------------
const                                      -5.427e+08   4.69e+08     -1.158      0.249   -1.47e+09    3.82e+08
Net lending/borrowing (overall balance) (% of GDP)  6.118e+07   6.46e+07      0.947      0.345   -6.63e+07    1.89e+08
==============================================================================
Omnibus:                      183.810   Durbin-Watson:                   1.722
Prob(Omnibus):                  0.000   Jarque-Bera (JB):             9078.845
Skew:                          -3.302   Prob(JB):                         0.00
Kurtosis:                      36.305   Cond. No.                         7.78
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 1.6695404302987158
LM P-Value: 0.43397419067130183
F Statistic: 0.8288415048702164
F P-Value: 0.43816055475340876

Rainbow Test Results:

Rainbow Statistic: 5.818103415007594
Rainbow P-Value: 6.81950256567529e-16

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:            Sum_GDPcycle   R-squared:                       0.948
Model:                             OLS   Adj. R-squared:                  0.921
Method:                  Least Squares   F-statistic:                     36.21
Date:                 Sat, 26 Aug 2023   Prob (F-statistic):             0.0265
Time:                         20:56:18   Log-Likelihood:                -89.962
No. Observations:                    4   AIC:                             183.9
Df Residuals:                        2   BIC:                             182.7
Df Model:                            1
Covariance Type:             nonrobust
=========================================================================================================
                                           coef    std err          t      P>|t|      [0.025      0.975]
---------------------------------------------------------------------------------------------------------
const                                 5.592e+09   1.71e+09      3.264      0.082   -1.78e+09     1.3e+10
Net official aid received (current US$)   -64.0771     10.649     -6.017      0.027    -109.895     -18.259
==============================================================================
Omnibus:                           nan   Durbin-Watson:                   2.862
Prob(Omnibus):                     nan   Jarque-Bera (JB):                0.906
Skew:                            1.112   Prob(JB):                        0.636
Kurtosis:                        2.299   Cond. No.                     2.75e+08
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
[2] The condition number is large, 2.75e+08. This might indicate that there are
strong multicollinearity or other numerical problems.
```

White Test Results:

LM Statistic: 2.005714423866192
LM P-Value: 0.15670745058629196
F Statistic: 2.0114615959410793
F P-Value: 0.2918837623902782

Rainbow Test Results:

Rainbow Statistic: 0.0
Rainbow P-Value: nan

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:           Sum_GDPcycle   R-squared:                       0.001
Model:                            OLS   Adj. R-squared:                 -0.003
Method:                 Least Squares   F-statistic:                    0.2249
Date:                Sat, 26 Aug 2023   Prob (F-statistic):              0.636
Time:                        20:56:18   Log-Likelihood:                -7121.1
No. Observations:                 299   AIC:                         1.425e+04
Df Residuals:                     297   BIC:                         1.425e+04
Df Model:                           1
Covariance Type:            nonrobust
====================================================================================================================================
                                                         coef    std err          t      P>|t|      [0.025      0.975]
------------------------------------------------------------------------------------------------------------------------------------
const                                               -4.869e+08   3.16e+08     -1.540      0.125   -1.11e+09    1.35e+08
Official exchange rate (LCU per US$, period average)   1.06e+05   2.23e+05      0.474      0.636   -3.34e+05    5.46e+05
==============================================================================
Omnibus:                      249.911   Durbin-Watson:                   1.817
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            18079.215
Skew:                          -2.778   Prob(JB):                         0.00
Kurtosis:                      40.687   Cond. No.                     1.45e+03
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
[2] The condition number is large, 1.45e+03. This might indicate that there are
strong multicollinearity or other numerical problems.
```

White Test Results:

LM Statistic: 0.039740686938298464
LM P-Value: 0.9803257707056067
F Statistic: 0.019673590330647
F P-Value: 0.9805199538693519

Rainbow Test Results:

Rainbow Statistic: 2.740534317628324
Rainbow P-Value: 9.91462290256257e-10

Regression Summary:

```
                        OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.000
Model:                           OLS   Adj. R-squared:                 -0.003
Method:                Least Squares   F-statistic:                   0.08961
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.765
Time:                       20:56:19   Log-Likelihood:                -7497.8
No. Observations:                315   AIC:                         1.500e+04
Df Residuals:                    313   BIC:                         1.501e+04
Df Model:                          1
Covariance Type:           nonrobust
==============================================================================
                coef    std err          t      P>|t|      [0.025      0.975]
------------------------------------------------------------------------------
const      -3.355e+08   6.75e+08     -0.497      0.619   -1.66e+09    9.92e+08
Oil price  -2.451e+06   8.19e+06     -0.299      0.765   -1.86e+07    1.37e+07
==============================================================================
Omnibus:                     260.281   Durbin-Watson:                   1.831
Prob(Omnibus):                 0.000   Jarque-Bera (JB):            19117.867
Skew:                         -2.753   Prob(JB):                         0.00
Kurtosis:                     40.766   Cond. No.                         187.
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 1.7454759859121811
LM P-Value: 0.4178060317818564
F Statistic: 0.8692428454442898
F P-Value: 0.42028170628004125

Rainbow Test Results:

Rainbow Statistic: 2.786191933131098
Rainbow P-Value: 1.9671371080126788e-10

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:           Sum_GDPcycle   R-squared:                       0.007
Model:                            OLS   Adj. R-squared:                  0.004
Method:                 Least Squares   F-statistic:                     2.304
Date:                Sat, 26 Aug 2023   Prob (F-statistic):              0.130
Time:                        20:56:19   Log-Likelihood:                -7496.7
No. Observations:                 315   AIC:                         1.500e+04
Df Residuals:                     313   BIC:                         1.500e+04
Df Model:                           1
Covariance Type:            nonrobust
=========================================================================================
                            coef    std err          t      P>|t|      [0.025      0.975]
-----------------------------------------------------------------------------------------
const                 -4.645e+08   2.98e+08     -1.557      0.121   -1.05e+09    1.23e+08
Oil price (% change) -1.855e+09   1.22e+09     -1.518      0.130   -4.26e+09     5.5e+08
==============================================================================
Omnibus:                      261.444   Durbin-Watson:                   1.831
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            18895.510
Skew:                          -2.780   Prob(JB):                         0.00
Kurtosis:                      40.533   Cond. No.                         4.13
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 0.6073588262463459
LM P-Value: 0.7380974528825259
F Statistic: 0.30136830347140176
F P-Value: 0.7400203605224971

Rainbow Test Results:

Rainbow Statistic: 2.8832720264012277
Rainbow P-Value: 5.349121422484827e-11

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:           Sum_GDPcycle   R-squared:                       0.049
Model:                            OLS   Adj. R-squared:                  0.043
Method:                 Least Squares   F-statistic:                     4.371
Date:                Sat, 26 Aug 2023   Prob (F-statistic):             0.0381
Time:                        20:56:19   Log-Likelihood:                -4001.2
No. Observations:                 167   AIC:                             8006.
Df Residuals:                     165   BIC:                             8013.
Df Model:                           1
Covariance Type:                  HC3
==============================================================================
                 coef    std err          z      P>|z|      [0.025      0.975]
------------------------------------------------------------------------------
const      -1.549e+09   8.45e+08     -1.833      0.067   -3.21e+09    1.08e+08
PV:GE      -1.832e+09   8.76e+08     -2.091      0.037   -3.55e+09   -1.14e+08
==============================================================================
Omnibus:                      147.100   Durbin-Watson:                   1.641
Prob(Omnibus):                  0.000   Jarque-Bera (JB):             6134.332
Skew:                          -2.732   Prob(JB):                         0.00
Kurtosis:                      32.184   Cond. No.                         1.79
==============================================================================

Notes:
[1] Standard Errors are heteroscedasticity robust (HC3)
```

White Test Results:

LM Statistic: 6.703762949809555
LM P-Value: 0.03501840582851812
F Statistic: 3.429329172039537
F P-Value: 0.034750592565201736

Rainbow Test Results:

Rainbow Statistic: 8.008336588104553
Rainbow P-Value: 1.8862087915361536e-18

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.012
Model:                           OLS   Adj. R-squared:                  0.006
Method:                Least Squares   F-statistic:                     2.157
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.144
Time:                       20:56:20   Log-Likelihood:                -4428.9
No. Observations:                185   AIC:                             8862.
Df Residuals:                    183   BIC:                             8868.
Df Model:                          1
Covariance Type:           nonrobust
==================================================================================================================================
                                                           coef    std err          t      P>|t|      [0.025      0.975]
----------------------------------------------------------------------------------------------------------------------------------
const                                                -6.417e+08   4.49e+08     -1.429      0.155   -1.53e+09    2.44e+08
Primary net lending/borrowing (primary balance) (% of GDP)  1.018e+08   6.93e+07      1.469      0.144    -3.5e+07    2.39e+08
==============================================================================
Omnibus:                      178.535   Durbin-Watson:                   1.714
Prob(Omnibus):                  0.000   Jarque-Bera (JB):             8227.226
Skew:                          -3.265   Prob(JB):                         0.00
Kurtosis:                      35.011   Cond. No.                         6.52
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 1.0661172164105244
LM P-Value: 0.5868074081080845
F Statistic: 0.5274540243762722
F P-Value: 0.5910047102838021

Rainbow Test Results:

Rainbow Statistic: 5.801072815468971
Rainbow P-Value: 1.5137883824373423e-15

Regression Summary:

```
                    OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.066
Model:                           OLS   Adj. R-squared:                  0.061
Method:                Least Squares   F-statistic:                     2.904
Date:               Sat, 26 Aug 2023   Prob (F-statistic):             0.0902
Time:                       20:56:20   Log-Likelihood:                -4141.8
No. Observations:                175   AIC:                             8288.
Df Residuals:                    173   BIC:                             8294.
Df Model:                          1
Covariance Type:                 HC3
===========================================================================================
                            coef    std err          z      P>|z|      [0.025      0.975]
-------------------------------------------------------------------------------------------
const                 -1.251e+09   5.72e+08     -2.187      0.029   -2.37e+09    -1.3e+08
Real interest rate (%)  1.121e+08   6.58e+07      1.704      0.088   -1.68e+07    2.41e+08
==============================================================================
Omnibus:                     109.066   Durbin-Watson:                   1.690
Prob(Omnibus):                 0.000   Jarque-Bera (JB):             5589.887
Skew:                         -1.481   Prob(JB):                         0.00
Kurtosis:                     30.529   Cond. No.                         16.7
==============================================================================

Notes:
[1] Standard Errors are heteroscedasticity robust (HC3)
```

White Test Results:

LM Statistic: 8.571103003971247
LM P-Value: 0.013766027435945355
F Statistic: 4.42900765219345
F P-Value: 0.01331677357620128

Rainbow Test Results:

Rainbow Statistic: 5.28233370420337
Rainbow P-Value: 1.4514004631918333e-13

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:           Sum_GDPcycle   R-squared:                       0.000
Model:                            OLS   Adj. R-squared:                 -0.003
Method:                 Least Squares   F-statistic:                   0.02093
Date:                Sat, 26 Aug 2023   Prob (F-statistic):              0.885
Time:                        20:56:20   Log-Likelihood:                -7497.9
No. Observations:                 315   AIC:                         1.500e+04
Df Residuals:                     313   BIC:                         1.501e+04
Df Model:                           1
Covariance Type:            nonrobust
===========================================================================================
                              coef    std err          t      P>|t|      [0.025      0.975]
-------------------------------------------------------------------------------------------
const                   -6.152e+08   7.42e+08     -0.829      0.408   -2.08e+09    8.46e+08
Real interest rate USA (%)   2.06e+07   1.42e+08      0.145      0.885    -2.6e+08    3.01e+08
==============================================================================
Omnibus:                      260.169   Durbin-Watson:                   1.830
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            19085.876
Skew:                          -2.752   Prob(JB):                         0.00
Kurtosis:                      40.734   Cond. No.                         13.4
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 3.047164822643786
LM P-Value: 0.21792977277595407
F Statistic: 1.523812765036013
F P-Value: 0.21949659645444716

Rainbow Test Results:

Rainbow Statistic: 2.7747174492197977
Rainbow P-Value: 2.2960405874546545e-10

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.010
Model:                           OLS   Adj. R-squared:                  0.005
Method:                Least Squares   F-statistic:                     1.572
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.211
Time:                       20:56:21   Log-Likelihood:                -4593.3
No. Observations:                192   AIC:                             9191.
Df Residuals:                    190   BIC:                             9197.
Df Model:                          1
Covariance Type:                 HC3
=======================================================================================
                          coef    std err          z      P>|z|      [0.025      0.975]
---------------------------------------------------------------------------------------
const                6.528e+08   7.18e+08      0.909      0.363   -7.54e+08    2.06e+09
Revenue (% of GDP) -5.515e+07    4.4e+07     -1.254      0.210   -1.41e+08    3.11e+07
==============================================================================
Omnibus:                      183.189   Durbin-Watson:                   1.702
Prob(Omnibus):                  0.000   Jarque-Bera (JB):             9443.481
Skew:                          -3.195   Prob(JB):                         0.00
Kurtosis:                      36.758   Cond. No.                         64.8
==============================================================================

Notes:
[1] Standard Errors are heteroscedasticity robust (HC3)
```

White Test Results:

LM Statistic: 5.706290697692566
LM P-Value: 0.05766266614042792
F Statistic: 2.894593021693985
F P-Value: 0.057778045552029714

Rainbow Test Results:

Rainbow Statistic: 5.827440858980028
Rainbow P-Value: 3.472691340494022e-16

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.007
Model:                           OLS   Adj. R-squared:                  0.003
Method:                Least Squares   F-statistic:                     1.412
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.236
Time:                       20:56:21   Log-Likelihood:                -5780.5
No. Observations:                245   AIC:                         1.156e+04
Df Residuals:                    243   BIC:                         1.157e+04
Df Model:                          1
Covariance Type:                 HC3
==========================================================================================================
                                              coef    std err          z      P>|z|      [0.025      0.975]
----------------------------------------------------------------------------------------------------------
const                                    2.286e+08   2.05e+08      1.115      0.265   -1.73e+08     6.3e+08
Short-term debt (% of total external debt) -3.014e+07   2.54e+07     -1.188      0.235   -7.99e+07    1.96e+07
==============================================================================
Omnibus:                      112.925   Durbin-Watson:                   1.427
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            14449.071
Skew:                          -0.643   Prob(JB):                         0.00
Kurtosis:                      40.600   Cond. No.                         22.4
==============================================================================

Notes:
[1] Standard Errors are heteroscedasticity robust (HC3)
```

White Test Results:

LM Statistic: 9.360147326261448
LM P-Value: 0.009278330391026327
F Statistic: 4.8063933737294295
F P-Value: 0.0089743218066083

Rainbow Test Results:

Rainbow Statistic: 4.014599521516694
Rainbow P-Value: 1.0144479901112227e-13

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:            Sum_GDPcycle   R-squared:                       0.000
Model:                             OLS   Adj. R-squared:                 -0.005
Method:                  Least Squares   F-statistic:                 0.0001476
Date:                 Sat, 26 Aug 2023   Prob (F-statistic):              0.990
Time:                         20:56:21   Log-Likelihood:                -5017.6
No. Observations:                  212   AIC:                         1.004e+04
Df Residuals:                      210   BIC:                         1.005e+04
Df Model:                            1
Covariance Type:             nonrobust
=====================================================================================================
                                          coef    std err          t      P>|t|      [0.025      0.975]
-----------------------------------------------------------------------------------------------------
const                               -9.515e+07   3.18e+08     -0.299      0.765   -7.22e+08    5.32e+08
Short-term debt (% of total reserves)  -106.6327   8777.509     -0.012      0.990   -1.74e+04    1.72e+04
==============================================================================
Omnibus:                      102.706   Durbin-Watson:                   1.380
Prob(Omnibus):                  0.000   Jarque-Bera (JB):             9436.965
Skew:                          -0.794   Prob(JB):                         0.00
Kurtosis:                      35.647   Cond. No.                     3.63e+04
==============================================================================
```

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
[2] The condition number is large, 3.63e+04. This might indicate that there are
strong multicollinearity or other numerical problems.

White Test Results:

LM Statistic: 0.038832893184177 93
LM P-Value: 0.9807708385112339
F Statistic: 0.019145192457357 84
F P-Value: 0.9810386330483198

Rainbow Test Results:

Rainbow Statistic: 4.397045270335976
Rainbow P-Value: 2.1563569042845806e-13

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:           Sum_GDPcycle   R-squared:                       0.025
Model:                            OLS   Adj. R-squared:                  0.021
Method:                 Least Squares   F-statistic:                    0.1325
Date:                Sat, 26 Aug 2023   Prob (F-statistic):              0.716
Time:                        20:56:22   Log-Likelihood:                -6417.5
No. Observations:                 269   AIC:                         1.284e+04
Df Residuals:                     267   BIC:                         1.285e+04
Df Model:                           1
Covariance Type:                  HC3
==============================================================================
                 coef    std err          z      P>|z|      [0.025      0.975]
------------------------------------------------------------------------------
const      -7.338e+08    5.2e+08     -1.410      0.159   -1.75e+09    2.86e+08
TRes           0.0502      0.138      0.364      0.716      -0.220       0.321
==============================================================================
Omnibus:                      265.183   Durbin-Watson:                   1.845
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            15891.729
Skew:                          -3.676   Prob(JB):                         0.00
Kurtosis:                      39.929   Cond. No.                     1.89e+10
==============================================================================

Notes:
[1] Standard Errors are heteroscedasticity robust (HC3)
[2] The condition number is large, 1.89e+10. This might indicate that there are
strong multicollinearity or other numerical problems.
```

White Test Results:

LM Statistic: 39.88992891566361
LM P-Value: 2.686850051044082e-10
F Statistic: 46.48687406046698
F P-Value: 6.135702064629281e-11

Rainbow Test Results:

Rainbow Statistic: 2.640992249153682
Rainbow P-Value: 2.0653528030190295e-08

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:            Sum_GDPcycle   R-squared:                       0.002
Model:                             OLS   Adj. R-squared:                 -0.002
Method:                  Least Squares   F-statistic:                    0.2404
Date:                 Sat, 26 Aug 2023   Prob (F-statistic):              0.624
Time:                         20:56:22   Log-Likelihood:                -5226.1
No. Observations:                  221   AIC:                         1.046e+04
Df Residuals:                      219   BIC:                         1.046e+04
Df Model:                            1
Covariance Type:                   HC3
==============================================================================================================================================
                                                                                 coef    std err          z      P>|z|      [0.025      0.975]
----------------------------------------------------------------------------------------------------------------------------------------------
const                                                                      -3.708e+08   3.66e+08     -1.012      0.311   -1.09e+09    3.47e+08
Total debt service (% of exports of goods, services and primary income)  1.584e+07   3.23e+07      0.490      0.624   -4.75e+07    7.92e+07
==============================================================================
Omnibus:                      114.143   Durbin-Watson:                   1.415
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            10805.753
Skew:                          -0.954   Prob(JB):                         0.00
Kurtosis:                      37.203   Cond. No.                         34.3
==============================================================================

Notes:
[1] Standard Errors are heteroscedasticity robust (HC3)
```

White Test Results:

LM Statistic: 7.116027802582759
LM P-Value: 0.028495363154100214
F Statistic: 3.6264850634323813
F P-Value: 0.028227372148257393

Rainbow Test Results:

Rainbow Statistic: 4.083353158953945
Rainbow P-Value: 8.94914163521859e-13

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.007
Model:                           OLS   Adj. R-squared:                  0.003
Method:                Least Squares   F-statistic:                     1.630
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.203
Time:                       20:56:23   Log-Likelihood:                -5732.0
No. Observations:                240   AIC:                         1.147e+04
Df Residuals:                    238   BIC:                         1.147e+04
Df Model:                          1
Covariance Type:           nonrobust
=======================================================================================================
                                        coef    std err          t      P>|t|      [0.025      0.975]
-------------------------------------------------------------------------------------------------------
const                             -1.243e+09   5.89e+08     -2.111      0.036    -2.4e+09   -8.31e+07
Total reserves in months of imports  1.669e+08   1.31e+08      1.277      0.203   -9.06e+07    4.24e+08
==============================================================================
Omnibus:                      216.310   Durbin-Watson:                   1.655
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            11071.918
Skew:                          -3.118   Prob(JB):                         0.00
Kurtosis:                      35.685   Cond. No.                         7.39
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 0.25950935161988653
LM P-Value: 0.8783108753967347
F Statistic: 0.1282714408558519
F P-Value: 0.879675608125186

Rainbow Test Results:

Rainbow Statistic: 3.7501305367378635
Rainbow P-Value: 1.9116640169665514e-12

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.003
Model:                           OLS   Adj. R-squared:                 -0.001
Method:                Least Squares   F-statistic:                    0.7008
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.403
Time:                       20:56:23   Log-Likelihood:                -6283.0
No. Observations:                263   AIC:                         1.257e+04
Df Residuals:                    261   BIC:                         1.258e+04
Df Model:                          1
Covariance Type:                 HC3
=====================================================================================
                        coef    std err          z      P>|z|      [0.025      0.975]
-------------------------------------------------------------------------------------
const              3.518e+07   1.02e+09      0.034      0.973   -1.97e+09    2.04e+09
Trade (% of GDP) -8.663e+06   1.03e+07     -0.837      0.403   -2.89e+07    1.16e+07
==============================================================================
Omnibus:                     211.064   Durbin-Watson:                   1.817
Prob(Omnibus):                 0.000   Jarque-Bera (JB):            11228.316
Skew:                         -2.619   Prob(JB):                         0.00
Kurtosis:                     34.579   Cond. No.                         184.
==============================================================================

Notes:
[1] Standard Errors are heteroscedasticity robust (HC3)
```

White Test Results:

LM Statistic: 6.7397351610180465
LM P-Value: 0.0343941915032677
F Statistic: 3.4190457560124488
F P-Value: 0.034222984456997535

Rainbow Test Results:

Rainbow Statistic: 2.868235592996899
Rainbow P-Value: 2.256345075276021e-09

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:           Sum_GDPcycle   R-squared:                       0.002
Model:                            OLS   Adj. R-squared:                 -0.003
Method:                 Least Squares   F-statistic:                    0.3885
Date:                Sat, 26 Aug 2023   Prob (F-statistic):              0.534
Time:                        20:56:24   Log-Likelihood:                -5043.2
No. Observations:                 211   AIC:                         1.009e+04
Df Residuals:                     209   BIC:                         1.010e+04
Df Model:                           1
Covariance Type:            nonrobust
===============================================================================================================================================
                                                                   coef    std err          t      P>|t|      [0.025      0.975]
-------------------------------------------------------------------------------------------------------------------------------------
const                                                           -4.291e+08   6.63e+08     -0.647      0.518   -1.74e+09    8.77e+08
Unemployment, total (% of total labor force) (modeled ILO estimate) -4.408e+07   7.07e+07     -0.623      0.534   -1.84e+08    9.53e+07
==============================================================================
Omnibus:                      202.523   Durbin-Watson:                   1.723
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            10613.785
Skew:                          -3.325   Prob(JB):                         0.00
Kurtosis:                      37.103   Cond. No.                         15.6
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 3.8759123713545023
LM P-Value: 0.14399795431149026
F Statistic: 1.9461516583410594
F P-Value: 0.14541456925558785

Rainbow Test Results:

Rainbow Statistic: 5.9581614737186355
Rainbow P-Value: 5.945018371340218e-18

Regression Summary:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.002
Model:                           OLS   Adj. R-squared:                 -0.006
Method:                Least Squares   F-statistic:                    0.2874
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.593
Time:                       20:56:24   Log-Likelihood:                -2864.2
No. Observations:                119   AIC:                             5732.
Df Residuals:                    117   BIC:                             5738.
Df Model:                          1
Covariance Type:           nonrobust
=====================================================================================================================================
                                                              coef    std err          t      P>|t|      [0.025      0.975]
-------------------------------------------------------------------------------------------------------------------------------------
const                                                   -5.238e+08      1e+09     -0.521      0.603   -2.51e+09    1.47e+09
Unemployment, total (% of total labor force) (national estimate) -4.951e+07   9.24e+07     -0.536      0.593   -2.32e+08    1.33e+08
==============================================================================
Omnibus:                       95.529   Durbin-Watson:                   1.882
Prob(Omnibus):                  0.000   Jarque-Bera (JB):             2791.399
Skew:                          -2.136   Prob(JB):                         0.00
Kurtosis:                      26.339   Cond. No.                         17.3
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
```

White Test Results:

LM Statistic: 3.8456179009000113
LM P-Value: 0.14619572827625307
F Statistic: 1.9369287923428855
F P-Value: 0.14877962483519327

Rainbow Test Results:

Rainbow Statistic: 5.016988092762715
Rainbow P-Value: 3.0802647019166438e-09

Regression Summary:

```
                    OLS Regression Results
==============================================================================
Dep. Variable:          Sum_GDPcycle   R-squared:                       0.004
Model:                           OLS   Adj. R-squared:                 -0.000
Method:                Least Squares   F-statistic:                   0.03755
Date:               Sat, 26 Aug 2023   Prob (F-statistic):              0.847
Time:                       20:56:24   Log-Likelihood:                -5451.9
No. Observations:                231   AIC:                         1.091e+04
Df Residuals:                    229   BIC:                         1.091e+04
Df Model:                          1
Covariance Type:                 HC3
==================================================================================================
                                     coef    std err          z      P>|z|      [0.025      0.975]
--------------------------------------------------------------------------------------------------
const                          -2.078e+08   4.91e+08     -0.423      0.672   -1.17e+09    7.55e+08
Use of IMF credit (DOD, current US$)     0.4753      2.453      0.194      0.846      -4.332       5.283
==============================================================================
Omnibus:                      141.859   Durbin-Watson:                   1.372
Prob(Omnibus):                  0.000   Jarque-Bera (JB):            15946.851
Skew:                          -1.358   Prob(JB):                         0.00
Kurtosis:                      43.613   Cond. No.                     7.04e+08
==============================================================================

Notes:
[1] Standard Errors are heteroscedasticity robust (HC3)
[2] The condition number is large, 7.04e+08. This might indicate that there are
strong multicollinearity or other numerical problems.
```

White Test Results:

LM Statistic: 44.30857647878397
LM P-Value: 2.80484698193708e-11
F Statistic: 54.349920431606954
F P-Value: 3.0386907963433862e-12

Rainbow Test Results:

Rainbow Statistic: 5.1014175784284
Rainbow P-Value: 7.739032205275926e-17